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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,504

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Tomohiro Yamada

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EXAMINER

GUGLIOTTA, NICOLE T

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,504	Applicant(s) YAMADA, TOMOHIRO	
	Examiner NICOLE T. GUGLIOTTA	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 - 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasuo et al. (JP 2000-342920, English Translation).

3. In regard to claim 1, Yasuo et al. teach the same ceramic honeycomb filter claimed by applicant. There would be a first flow passage of hexagonal cells, as well as second flow passages of pentagonal cells, and third flow passages of rectangular cells. Yasuo et al. disclose the monolith type filter preferably has pentagonal or higher degree of polygonal cells, making the corner angle 90° or more, and more preferably has cells of corner angle much more than 90° (e.g. hexagonal cells) or circular cells, which have no corners (Sections 0006, 0024, English Translation).

4. Yasuo et al. disclose an octagon-like shape from a rectangular cell in order to overcome disadvantages resulting from the rectangular cell (Section 0033). An octagon-like shape trimmed from a rectangle would be irregular in shape and have greater than 7-sides. The angles of a regular octagon are 135°. Therefore the disclosure by Yasuo et al. is within the scope of applicant's amended claim.

5. In regard to claim 2, 2 or more sets of parallel lines, each set comprising two parallel lines, can be easily seen by Drawings 1a, 3a, 3b, 5 and 4a. Yasuo et al. also describe these parallel lines in Sections 0027 and 0029.

Invention of Applicant

FIG. 1(b)

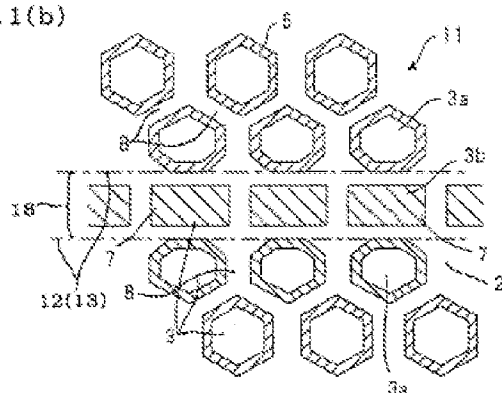
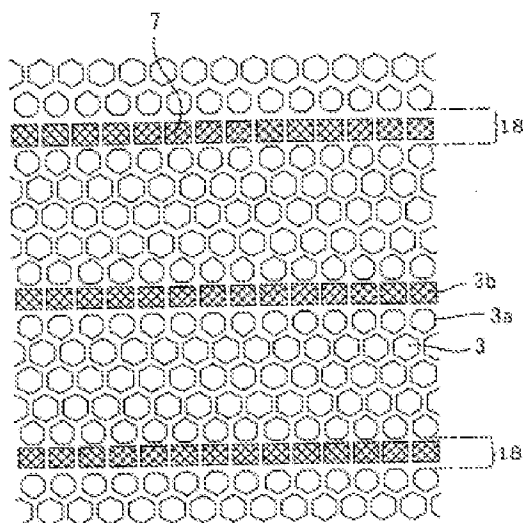
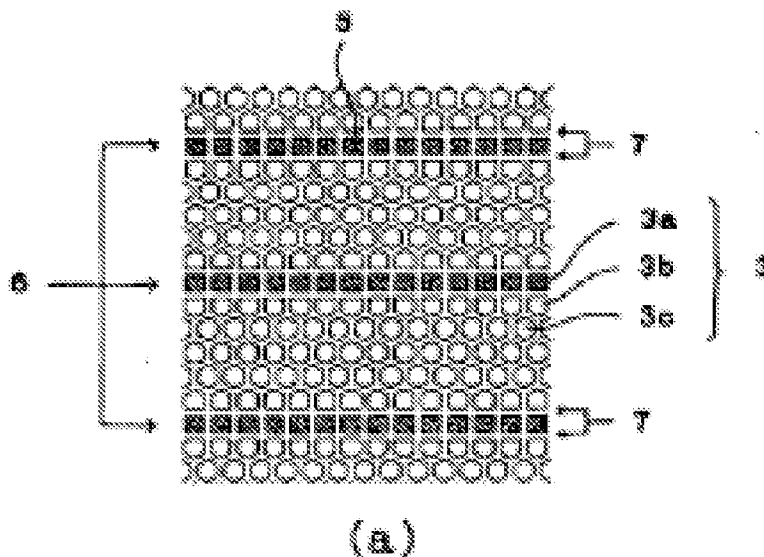


FIG. 6



Invention of Yasuo et al.



6. In regard to claim 3, Yasuo et al. teach an outside diameter of 180 mm x the length of 1000 mm (Section 0034).
7. In regard to claim 4, the "slit-like auxiliary flow passages" claimed by applicant are described by Yasuo et al. in Sections 0035, 0037. In a larger filter, some of plural numbers of cell lines may be broken to form slit-like space (corresponds to applicant's "slit-like auxiliary flow passages" which connect part of the cells to the external space (Section 0035). The opening of the slit-forming cell at the edge of the substrate is hermetically sealed with sealant in order to prevent contamination of the filtered liquid with the raw liquid because the raw liquid does not flow into the area (Section 0039).
8. In regard to claim 5, Yasuo et al. teach a total of 18 straight-line-like cell walls formed on both sides of a nine-row cell train (Section 34). Drawings 1a and 5

demonstrate 3 main flow passages arranged subsequently to one row of second specific main flow passages. Drawing 4a demonstrates 5 main flow passages arranged subsequent to one row of second specific main flow passages.

9. In regard to claim 3, 180 is greater than 70, therefore falls within range claimed by applicant for the maximum diameter of the ceramic filter.

Response to Arguments

10. Applicant argues "that one skilled in the art would readily recognize that the straight partition walls are not necessarily the partition walls for the square cells, as shown in Fig. 1(a). In this respect, Applicant respectfully submits that Figs. 3(a) and (b) of JP '920 also show that no parallel lines are formed by any of side faces of cells 33a, 33b, and 33c facing the straight partition walls 34a and 34b" (Remarks, Page 6, 2nd full paragraph).

11. Applicant's arguments filed May 12, 2008 have been fully considered but they are not persuasive. First, Examiner maintains that Figure 1(a) of Yasuo et al. disclose the straight partition walls are partition walls for the square cells. Second, Examiner notes Figures 3(a) and 3(b) are a different embodiment of Yasuo's invention than that of Embodiment 1. This rejection is based upon Embodiment 1 (Figure 1(a)) of Yasuo's invention, not Figures 3(a) and 3(b), which are different are different embodiment.

12. Applicant argues "that JP '920 (Yasuo et al.) fails to disclose or suggest a plurality of first flow passages having a first cross-sectional shape (as defined by claim

1), a plurality of second flow passages having a different cross-sectional shape, and a plurality of third flow passages arranged with respect to the specific partition wall part according to the pending claims” (Remarks, Page 6, last paragraph).

13. Applicant's arguments filed May 12, 2008 have been fully considered but they are not persuasive. Yasuo et al. disclose a plurality of first flow passages having a first cross-sectional shape (hexagonal shaped cells), and a plurality of second flow passages having a different cross-sectional shape (irregular pentagonal or higher shaped cells), and a plurality of third flow passages arranged with respect to the specific partition wall part (rectangular shaped cells), in Figure 1(a).

14. Applicant argues PTO's analysis (of unexpected results of the present invention with comparative example (that corresponds to JP '920) "is legally incorrect."

15. Applicant's arguments filed May 12, 2008 have been fully considered but they are not persuasive. Examiner points out Yasuo et al. disclose “the filter of the present invention preferably uses the pentagonal or the higher degree of polygonal cell... it is possible to control these disadvantages by trimming the corners of the rectangular cell (to make the cell an octagon-like shape)....” (Section 0033). Therefore, one would reasonably envision that irregular polygons with 5, 6, 7, or 8 sides be utilized in the honeycomb filter. Yasuo et al. is not limited to five or seven sided polygons, and therefore the distinction between pentagons and heptagons is moot.

16. Applicant argues "Yorita discloses 'other polygons' besides squares can be used" does not include heptagons and irregular polygons. "Applicant respectfully submits that this is clearly an overly broad interpretation of Yorita" (Remarks, Page 7, last paragraph).

17. "Applicant respectfully submits that Yorita simply fails to disclose or suggest the claimed first, second and third flow passages, the arrangements and the structural relationships recited in the claims" (Remarks, Page 8, 2nd paragraph).

18. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. Yorita is withdrawn as a reference based upon the amended claims filed by applicant on May 12, 2008. Therefore, arguments against Yorita are moot in view of the rejections based upon applicant's amended claims.

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE T. GUGLIOTTA whose telephone number is (571)270-1552. The examiner can normally be reached on M - Th 8:30 - 6 p.m., & every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NICOLE T. GUGLIOTTA
Examiner
Art Unit 1794

/Carol Chaney/
Supervisory Patent Examiner, Art Unit 1794